



## 90 Degree Drop-In Hybrid Coupler From 20 MHz to 1,000 MHz Rated to 150 Watts

### Hybrids Technical Data Sheet

**PE2CP1027**

#### Features

- High Power
- 16 dB isolation
- 20 MHz to 1,000 MHz Frequency Range
- Gold Plated Silver Leads
- 2.2 inch by 3 inch package
- Clear Chem Film Per MIL-DTL-5541

#### Applications

- Test and measurement
- Military Communications
- Commercial Communications
- Wireless Communications
- SATCOM
- Military Electronic Systems

#### Description

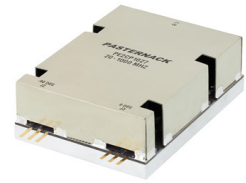
The PE2CP1027 operates from 20 MHz to 1,000 MHz and can handle 150 watts of power with 16 dB isolation. The package is 2.2 inch by 3 inch with gold plated silver leads and can be attached to a heat sink and PCB by screws. Gold plated leads are resistant to oxidation for ease of soldering and ensuring superior electrical performance of 1.3:1 VSWR and an insertion loss of 0.9 dB.

The PE2CP1027 is part of Pasternack's family of 90 degree hybrid couplers in drop-in packages. These couplers feature small drop-in packages that can handle power up to 1,000 Watts. They are available in both narrow and broad bandwidths. These quadrature hybrids are excellent for any situation to either equally split an input signal into two paths with a 90 degree phase shift between them or to combine signals while maintaining high isolation between them.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	20		1,000	MHz
Impedance		50		Ohms
Phase Difference		90		Degrees
Insertion Loss			0.9	dB
Isolation	16			dB
VSWR			1.3:1	
Amplitude Balance		0.25		dB
Phase Balance		12		Degrees
Input Power (CW)			150	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [90 Degree Drop-In Hybrid Coupler From 20 MHz to 1,000 MHz Rated to 150 Watts PE2CP1027](#)



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**Mechanical Specifications**

**Size**

Length	2.2 in [55.88 mm]
Width	0.94 in [23.88 mm]
Height	3 in [76.2 mm]
Weight	0.413 lbs [187.33 g]

**Configuration**

RF Connector Type	Pin
Contact Material and Plating	Silver, Gold

**Environmental Specifications**

**Temperature**

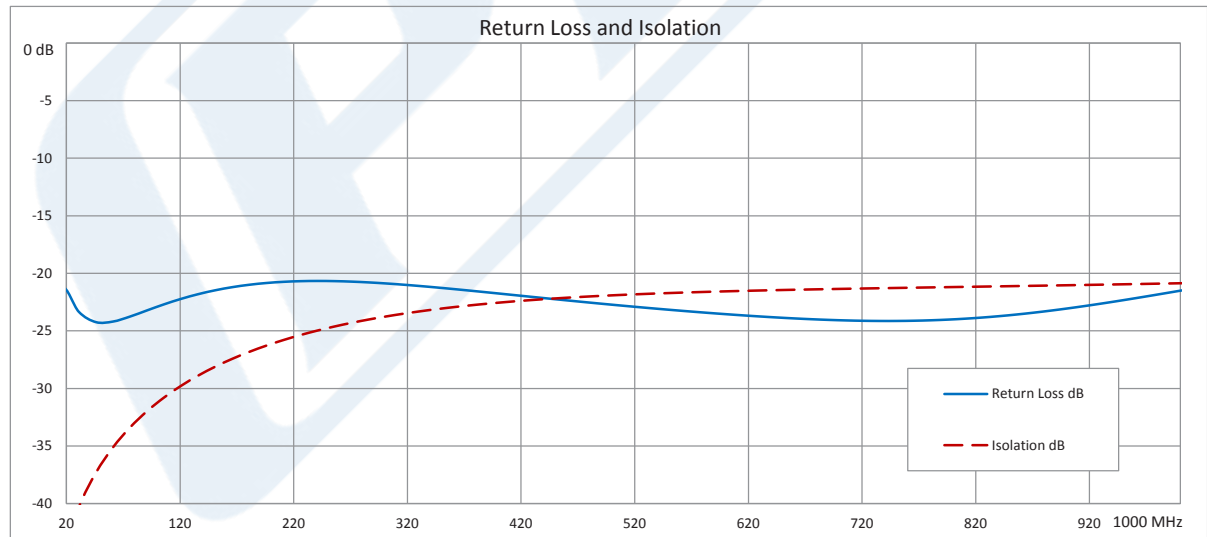
Operating Range	-55 to +85 deg C
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**Compliance Certifications** (see [product page](#) for current document)

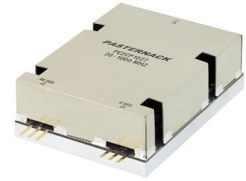
**Plotted and Other Data**

Notes:

**Typical Performance Data**



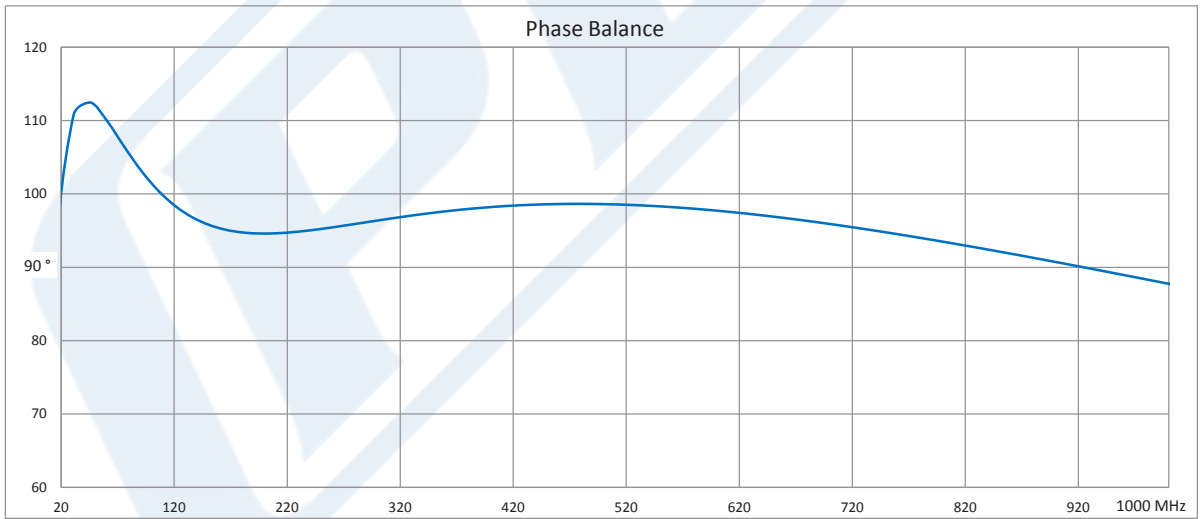
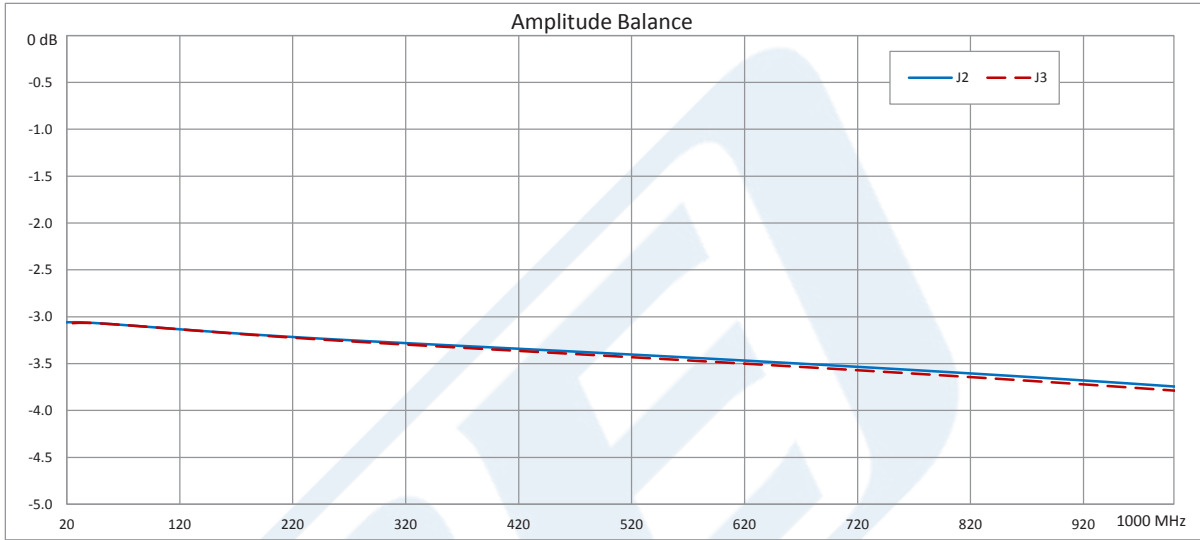
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**PE2CP1027**



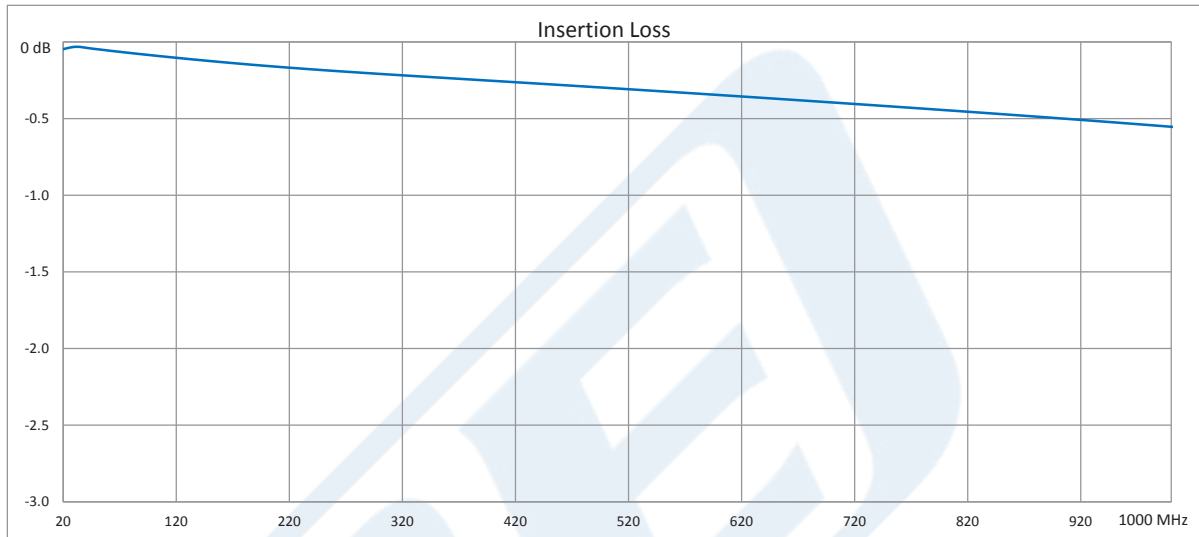
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### Hybrids Technical Data Sheet

**PE2CP1027**



90 Degree Drop-In Hybrid Coupler From 20 MHz to 1,000 MHz Rated to 150 Watts from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [90 Degree Drop-In Hybrid Coupler From 20 MHz to 1,000 MHz Rated to 150 Watts PE2CP1027](https://www.pasternack.com/drop-in-coupler-20-1000-mhz-150-watts-pe2cp1027-p.aspx)

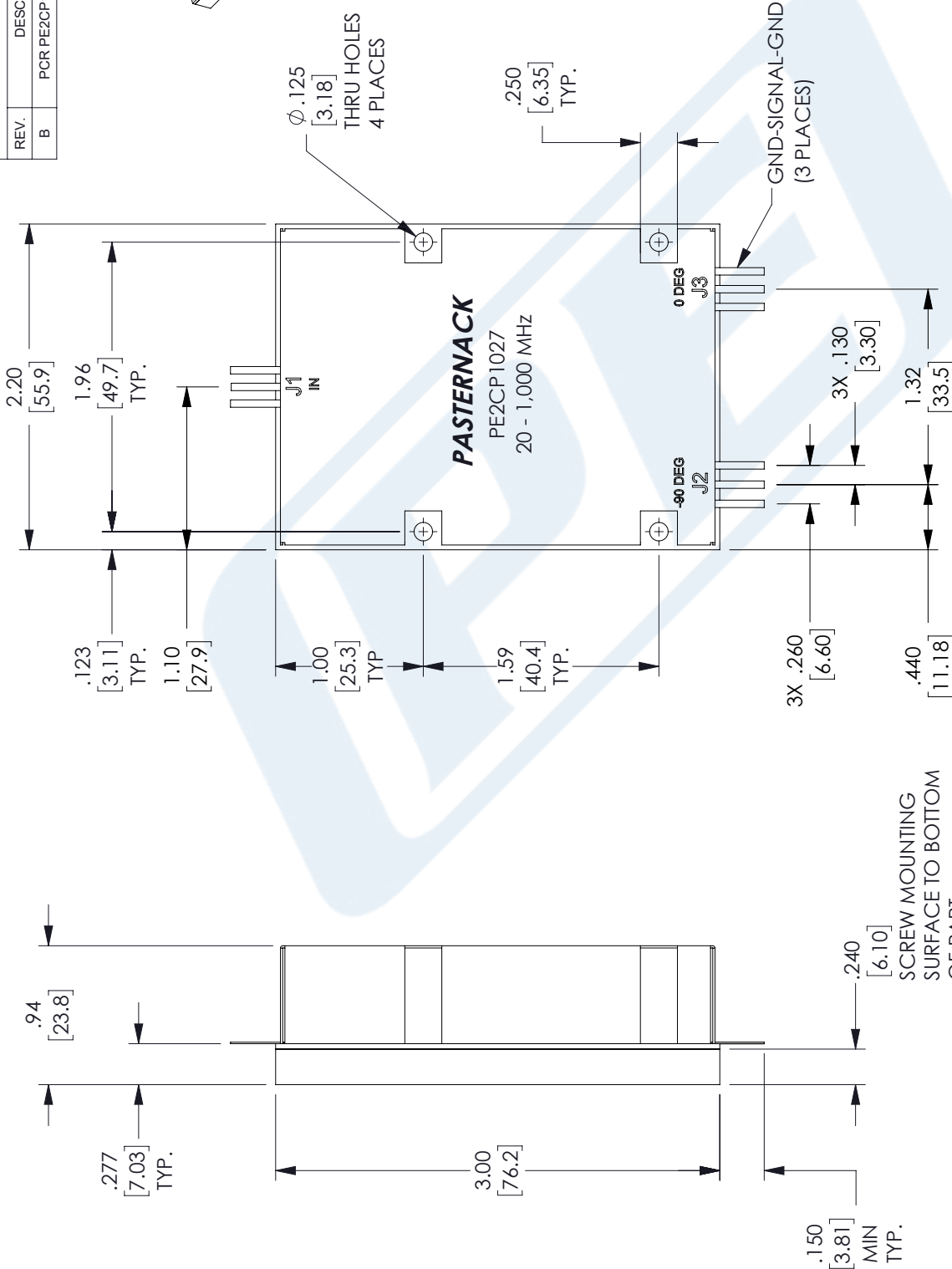
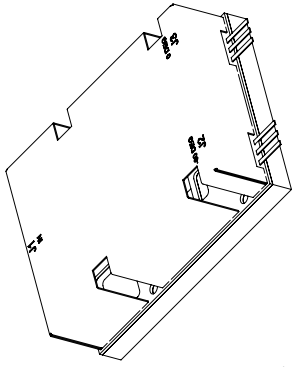
URL: <https://www.pasternack.com/drop-in-coupler-20-1000-mhz-150-watts-pe2cp1027-p.aspx>

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# PE2CP1027 CAD Drawing

90 Degree Drop-In Hybrid Coupler From 20 MHz to 1,000 MHz Rated to 150 Watts

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
B	PCR PE2CP1027 2022/8/25	09/02/2022	SPONG



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:

.X = ±.2 [5.08] FRACTIONS  
 .XX = ±.02 [.51] ±.1/32  
 .XXX = ±.005 [.13] ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:  
 L ≤ 12 [305] = +1 [25] / -0  
 12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  
 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0  
 300 [7620] < L = +5%L / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

**PE PASTERNAK**  
 an INFINITI<sup>®</sup> brand

Pasternack Enterprises, Inc.  
 P.O. Box 16759, Irvine, CA 92623.  
 Phone: 1.949.261.1920 | 1.866.727.8376  
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 Website: www.pasternack.com  
 E-mail: sales@pasternack.com

THIRD-ANGLE PROJECTION

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SHEET 1 OF 2  
 SCALE N/A

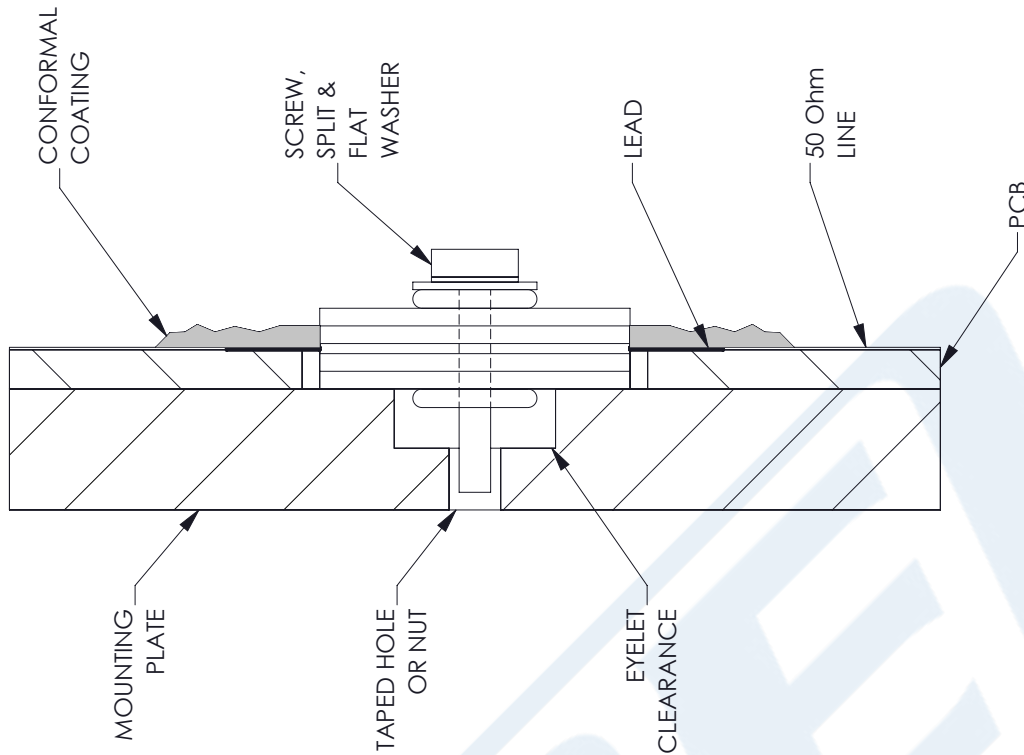
ITEM NO. PE2CP1027  
 DRAWN BY KGLEBOVA  
 CAGE CODE A 53919  
 REV B

PORT CONFIGURATION			
INPUT	J1	J2	J3
J1	---	-3dB<-90 DEG	-3dB<0 DEG

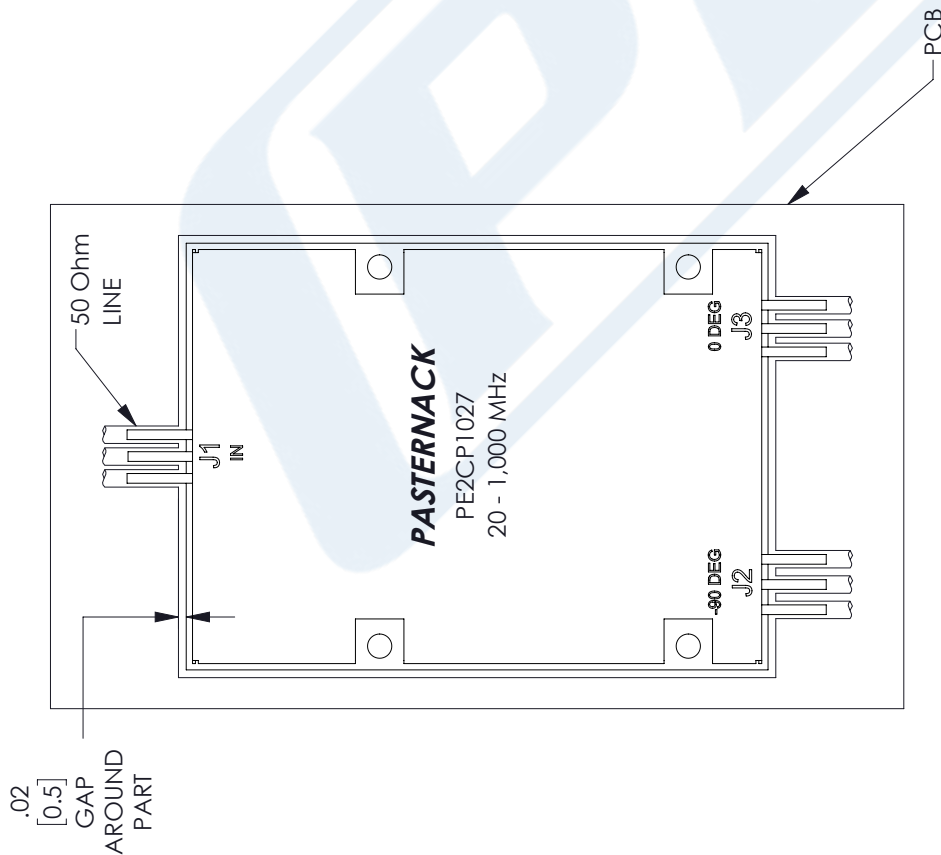
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MOUNTING SIDE VIEW  
FOR REFERENCE ONLY



MOUNTING TOP VIEW  
FOR REFERENCE ONLY

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SHEET 2 OF 2  
SCALE N/A



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 Website: www.pasternack.com  
 E-mail: sales@pasternack.com

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	KGLEBOVA	PE2CP1027	B

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